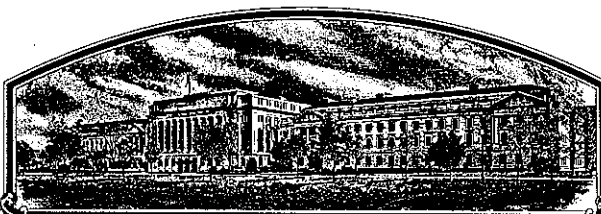


No.

8400035



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

**Lynnville Seed Company**

Whereas, THERE HAS BEEN PRESENTED TO THE  
**Secretary of Agriculture**

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (T. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN 'Riverside 303C'

In Testimony Whereof, I have hereunto set  
my hand and caused the seal of the Plant  
Variety Protection Office to be affixed  
at the City of Washington  
this 31st day of January in  
the year of our Lord one thousand nine  
hundred and eighty-six.

Attest

*Ezra H. Evans*  
Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

*W. M. [Signature]*  
Acting Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
LIVESTOCK, MEAT, GRAIN & SEED DIVISION

FORM APPROVED: OMB NO. 0581-0005

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1. NAME OF APPLICANT(S) <p style="text-align: center;">Lynnville Seed Company</p>		2. TEMPORARY DESIGNATION <p style="text-align: center;">7516M36</p>		3. VARIETY NAME <p style="text-align: center;">Riverside 303C</p>			
4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) <p style="text-align: center;">Lynnville, Iowa 50153</p>		5. PHONE (Include area code) <p style="text-align: center;">515-527-2220</p>		FOR OFFICIAL USE ONLY PVPO NUMBER <p style="text-align: center; font-size: 1.2em;"><b>8400035</b></p>			
6. GENUS AND SPECIES NAME <p style="text-align: center;">Glycine max (L.) Merrill</p>		7. FAMILY NAME (Botanical) <p style="text-align: center;">Leguminosae</p>		FILING DATE <p style="text-align: center;">1/5/84</p> TIME <p style="text-align: center;">2:30 <input type="checkbox"/> A.M. <input checked="" type="checkbox"/> P.M.</p>			
8. KIND NAME <p style="text-align: center;">Soybean</p>		9. DATE OF DETERMINATION <p style="text-align: center;">1981</p>		FEES RECEIVED AMOUNT FOR FILING <p style="text-align: center;">\$ 1,000</p> DATE <p style="text-align: center;">1/5/84</p>			
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) <p style="text-align: center;">Corporation</p>				AMOUNT FOR CERTIFICATE <p style="text-align: center;">\$</p> DATE <p style="text-align: center;">DATE</p>			
11. IF INCORPORATED, GIVE STATE OF INCORPORATION <p style="text-align: center;">Iowa</p>				12. DATE OF INCORPORATION <p style="text-align: center;">1-1-61</p>			
13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS <p style="text-align: center;">Roy D. Meeks Lynnville Seed Company Lynnville, Iowa 50153</p>							
14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED <table style="width:100%; border: none;"> <tr> <td style="width:50%; vertical-align: top;">           a. <input checked="" type="checkbox"/> Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)             b. <input checked="" type="checkbox"/> Exhibit B, Novelty Statement         </td> <td style="width:50%; vertical-align: top;">           c. <input checked="" type="checkbox"/> Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)             d. <input checked="" type="checkbox"/> Exhibit D, Additional Description of the Variety         </td> </tr> </table>						a. <input checked="" type="checkbox"/> Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)  b. <input checked="" type="checkbox"/> Exhibit B, Novelty Statement	c. <input checked="" type="checkbox"/> Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)  d. <input checked="" type="checkbox"/> Exhibit D, Additional Description of the Variety
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15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act.) <div style="float: right;"> <input type="checkbox"/> Yes (If "Yes," answer items 16 and 17 below)           <input checked="" type="checkbox"/> No         </div>							
16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED? <input type="checkbox"/> Foundation <input type="checkbox"/> Registered <input type="checkbox"/> Certified				
18. DID THE APPLICANT(S) FILE FOR PROTECTION OF THE VARIETY IN THE U.S. OR OTHER COUNTRIES? <div style="text-align: right;"> <input type="checkbox"/> Yes (If "Yes," give names of countries and dates)  <input checked="" type="checkbox"/> No         </div>							
19. HAVE RIGHTS BEEN GRANTED IN THE U.S. OR OTHER COUNTRIES? <div style="text-align: right;"> <input type="checkbox"/> Yes (If "Yes," give names of countries and dates)  <input checked="" type="checkbox"/> No         </div>							
20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable. The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.							
SIGNATURE OF APPLICANT <p style="text-align: center;">Roy D. Meeks</p>				DATE <p style="text-align: center;">12-29-83</p>			
SIGNATURE OF APPLICANT <p style="text-align: center;">Lynnville Seed Co. by Debra Baarda</p>				DATE <p style="text-align: center;">4-10-84</p>			

EXHIBIT A

Riverside soybean variety, 303C, is an F5 selection from the progeny of the cross of Calland x Pride B216. The progeny from this cross were advanced from F3 to F5 generation utilizing the single seed descent method of breeding. The cross was made and the F1's were grown. F2 seed was harvested and grown out. A single pod was picked from each F2 plant to advance the generation. This procedure was continued until the F5 generation. In the F5 generation, selections were made for yield testing in the F6 generation. Replicated yield tests were conducted in the F7 & F8 generations. Riverside 303C was the highest yielding F5 selection and variety purification and multiplication increase was started in the F8 generation.

"Riverside 303C" is uniform and stable but approximately 1 in 10,000 plants is an off-type with brown pubescence.

Exhibit B

'Riverside 303C' is most similar to '90339-30435' with the exception that Riverside 303C is 9 cm shorter in height than '90339-30435'. The differences are shown below.

Mean Plant Height in cm

Riverside 303C	82.3
90339-30435	91.1

The individual observations are shown below.

	<u>303C</u>	<u>90339-30435</u>
Observation No.	Plant Height cm	Plant Height cm
1	84	92
2	87	93
3	79	92
4	82	91
5	81	90
6	84	90
7	79	90
Mean	<u>82.3</u>	<u>91.1</u>

Mean Plant Height in cm

303C	82.3
90339-30435	91.1

3

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
LIVESTOCK, MEAT, GRAIN & SEED DIVISION  
PLANT VARIETY PROTECTION OFFICE  
BELTSVILLE, MARYLAND 20705

EXHIBIT C  
(Soybean)

OBJECTIVE DESCRIPTION OF VARIETY  
SOYBEAN (*Glycine max* L.)

NAME OF APPLICANT(S) <b>Lynnvile Seed Company</b>	TEMPORARY DESIGNATION <b>7516M36</b>	VARIETY NAME <b>Riverside 303C</b>
ADDRESS (Street and No., or R.F.D. No., City, State, and Zip Code) <b>Lynnvile, Iowa 50153</b>		FOR OFFICIAL USE ONLY PVPO NUMBER <b>8400035</b>

Choose the appropriate response which characterizes the variety in the features described below. When the number of significant digits in your answer is fewer than the number of boxes provided, place a zero in the first box when number is 9 or less (e.g., ).

## 1. SEED SHAPE:

☒ 4 R/S 4/17/84



1 = Spherical (L/W, L/T, and T/W ratios = < 1.2)  
3 = Elongate (L/T ratio > 1.2; T/W = < 1.2)

2 = Spherical Flattened (L/W ratio > 1.2; L/T ratio = < 1.2)  
4 = Elongate Flattened (L/T ratio > 1.2; T/W > 1.2)

## 2. SEED COAT COLOR: (Mature Seed)

☒ 1 1 = Yellow 2 = Green 3 = Brown 4 = Black 5 = Other (Specify) \_\_\_\_\_

## 3. SEED COAT LUSTER: (Mature Hand Shelled Seed)

☒ 1 1 = Dull ('Corsoy 79'; 'Braxton') 2 = Shiny ('Nebsoy'; 'Gasoy 17')

## 4. SEED SIZE: (Mature Seed)

Grams per 100 seeds

## 5. HILUM COLOR: (Mature Seed)

☒ 4 1 = Buff 2 = Yellow 3 = Brown 4 = Gray 5 = Imperfect Black 6 = Black 7 = Other (Specify) \_\_\_\_\_

## 6. COTYLEDON COLOR: (Mature Seed)

☒ 1 1 = Yellow 2 = Green

## 7. SEED PROTEIN PEROXIDASE ACTIVITY:

☐ 1 = Low 2 = High

## 8. SEED PROTEIN ELECTROPHORETIC BAND:

☐ 1 = Type A (SP1<sup>a</sup>) 2 = Type B (SP1<sup>b</sup>)

## 9. HYPOCOTYL COLOR:

☒ 3 1 = Green only ('Evans'; 'Davis') 2 = Green with bronze band below cotyledons ('Woodworth'; 'Tracy')  
3 = Light Purple below cotyledons ('Beeson'; 'Pickett 71')  
4 = Dark Purple extending to unifoliate leaves ('Hodgson'; 'Coker Hampton 266A')

## 10. LEAFLET SHAPE:

☒ 3 1 = Lanceolate 2 = Oval 3 = Ovate 4 = Other (Specify) \_\_\_\_\_

## 11. LEAFLET SIZE:

1 = Small ('Amsoy 71'; 'A5312')  
3 = Large ('Crawford'; 'Tracy')

2 = Medium ('Corsoy 79'; 'Gasoy 17')

## 12. LEAF COLOR:

1 = Light Green ('Weber'; 'York')  
3 = Dark Green ('Gnome'; 'Tracy')

2 = Medium Green ('Corsoy 79'; 'Braxton')

## 13. FLOWER COLOR:

1 = White

2 = Purple

3 = White with purple throat

## 14. POD COLOR:

1 = Tan

2 = Brown

3 = Black

## 15. PLANT PUBESCENCE COLOR:

1 = Gray

2 = Brown (Tawny)

## 16. PLANT TYPES:

1 = Slender ('Essex'; 'Amsoy 71')  
3 = Bushy ('Gnome'; 'Govan')

2 = Intermediate ('Amcor'; 'Braxton')

## 17. PLANT HABIT:

1 = Determinate ('Gnome'; 'Braxton')

2 = Semi-Determinate ('Will')

3 = Indeterminate ('Nebsoy'; 'Improved Pelican')

## 18. MATURITY GROUP:

1 = 000

2 = 00

3 = 0

4 = I

5 = II

6 = III

7 = IV

8 = V

9 = VI

10 = VII

11 = VIII

12 = IX

13 = X

## 19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

## BACTERIAL DISEASES:

Bacterial Pustule (*Xanthomonas phaseoli* var. *sojensis*)Bacterial Blight (*Pseudomonas glycinea*)Wildfire (*Pseudomonas tabaci*)

## FUNGAL DISEASES:

Brown Spot (*Septoria glycines*)Frogeye Leaf Spot (*Cercospora sojae*)

Race 1

Race 2

Race 3

Race 4

Race 5

Other (Specify)

Target Spot (*Corynespora cassicola*)Downy Mildew (*Peronospora trifoliorum* var. *manshurica*)Powdery Mildew (*Microsphaera diffusa*)Brown Stem Rot (*Cephalosporium gregatum*)Stem Canker (*Diaporthe phaseolorum* var. *caulivora*)

## 19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant) (Continued)

## FUNGAL DISEASES: (Continued)

 Pod and Stem Blight (*Diaporthe phaseolorum* var; *sojae*) Purple Seed Stain (*Cercospora kikuchii*) Rhizoctonia Root Rot (*Rhizoctonia solani*)Phytophthora Rot (*Phytophthora megasperma* var. *sojae*) Race 1  Race 2  Race 3  Race 4  Race 5  Race 6  Race 7 Race 8  Race 9  Other (Specify) \_\_\_\_\_

## VIRAL DISEASES:

 Bud Blight (Tobacco Ringspot Virus) Yellow Mosaic (Bean Yellow Mosaic Virus) Cowpea Mosaic (Cowpea Chlorotic Virus) Pod Mottle (Bean Pod Mottle Virus) Seed Mottle (Soybean Mosaic Virus)

## NEMATODE DISEASES:

Soybean Cyst Nematode (*Heterodera glycines*) Race 1  Race 2  Race 3  Race 4  Other (Specify) \_\_\_\_\_ Lance Nematode (*Hoplolaimus Colombus*) Southern Root Knot Nematode (*Meloidogyne incognita*) Northern Root Knot Nematode (*Meloidogyne Hapla*) Peanut Root Knot Nematode (*Meloidogyne arenaria*) Reniform Nematode (*Rotylenchulus reniformis*) OTHER DISEASE NOT ON FORM (Specify): \_\_\_\_\_

## 20. PHYSIOLOGICAL RESPONSES: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

 Iron Chlorosis on Calcareous Soil Other (Specify) \_\_\_\_\_

## 21. INSECT REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

 Mexican Bean Beetle (*Epilachna varivestis*) Potato Leaf Hopper (*Empoasca fabae*) Other (Specify) \_\_\_\_\_

## 22. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant Shape	Pride B216	Seed Coat Luster	Pride B216
Leaf Shape	Pride B216	Seed Size	Calland
Leaf Color	Pride B216	Seed Shape	Pride B216
Leaf Size	Pride B216	Seedling Pigmentation	Pride B216

23. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD VARIETY: Paired Comparison Data

VARIETY	NO. OF DAYS MATURITY	PLANT LODGING SCORE	CM PLANT HEIGHT	LEAFLET SIZE		SEED CONTENT		SEED SIZE G/100 SEEDS	NO. SEEDS/ POD
				CM Width	CM Length	% Protein	% Oil		
Submitted	112	1.7	79	2.6	2.9			18.0	2-3
Pride B216 Name of Similar Variety	113	2.0	81	2.9	3.2			16.3	2-3

PUBLICATIONS USEFUL AS REFERENCE AIDS FOR COMPLETING THIS FORM:

1. Caldwell, B.E., ed. 1973. Soybeans: Improvement, Production, and Uses. Amer. Soc. Agron. Monograph No. 16.
2. Buttery, B.R. and R.I. Buzzell. 1968. Peroxidase activity in seeds of soybean varieties. Crop Sci., 8: 722-725.
3. Hymowitz, T. 1973. Electrophoretic analysis of SBTI-A<sub>2</sub> in the USDA soybean germplasm collection. Crop Sci., 13: 420-421.
4. Payne, R.C. and L.F. Morris. 1976. Differentiation of soybean cultivars by seedling pigmentation patterns. J. Seed Technol. 1: 1-19.



EXHIBIT D

"Riverside 303C" is an indeterminate variety which has purple flowers and gray pubescence. This variety matures approximately 3 days later than Corsoy 79. This variety is resistant to race 1 and 2 of Phytophthora root rot and has excellent field tolerance when tested against race 4. This variety grew to a height of 79 cm in 1983. This variety has intermediate type of growth habit.